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WHAT IS CLAIMED IS:

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- 1. A line driver, comprising:
- a differential amplifier having an inverting output terminal, a non-inverting output terminal, an inverting input terminal, and a non-inverting input terminal;
- a first resistor coupled to the inverting input terminal; a second resistor coupled to the non-inverting input terminal; and a resistive feedback network, having a plurality of resistors in symmetric configuration to couple to the inverting output terminal, the non-inverting output terminal, the inverting input terminal, and the non-inverting input terminal to form a feedback network.
- 2. The line driver of claim 1, wherein the resistive feedback network further includes a third resistor, a fourth resistor, a fifth resistor, a sixth resistor, a first match resistor, and a second match resistor, wherein a first terminal of the third resistor is coupled to the non-inverting output terminal and a first terminal of the first match resistor, a second terminal of the third resistor is coupled to the inverting input terminal and a first terminal of the sixth resistor, a first terminal of the fourth resistor is coupled to the inverting output terminal and a first terminal of the second match resistor, a second terminal of the fourth resistor is coupled to the non-inverting input terminal and a first terminal of the fifth resistor, a second terminal of the fifth resistor is coupled to a second terminal of the sixth resistor is coupled to a second terminal of the second match resistor.

- 3. The line driver of claim 2, wherein the resistive feedback network further includes further comprising:
 a seventh resistor and an eighth resistor, wherein a first terminal of the seventh resistor is coupled to the inverting input terminal, a second terminal of the seventh resistor is coupled to the second terminal of the fifth resistor,
- of the seventh resistor is coupled to the second terminal of the fifth resistor a first terminal of the eighth resistor is coupled to the non-inverting input terminal, and a second terminal of the eighth resistor is coupled to the second terminal of the sixth resistor.
 - 4. The line driver of claim 2, further comprising:
- a ninth resistor and a tenth resistor, wherein a first terminal of the ninth resistor is coupled to the non-inverting input terminal, a second terminal of the ninth resistor is coupled to the first terminal of the third resistor, a first terminal of the tenth resistor is coupled to the inverting input terminal, and a second terminal of the tenth resistor is coupled to the first terminal of the fourth resistor.
 - 5. A line driver, comprising:

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- a differential amplifier having an inverting output terminal, a non-inverting output terminal, an inverting input terminal, and a non-inverting input terminal;
- a first resistor unit coupled to the inverting input terminal; a impedance matching resistor unit coupled to the non-inverting output terminal; and
 - a resistive feedback network, having a plurality of resistors in symmetric configuration, wherein the resistive feedback network further includes:

a second resistor unit coupled to the impedance matching resistor unit and the inverting input terminal;

a third resistor unit coupled to the non-inverting output terminal and the inverting input terminal;

a fourth resistor unit coupled to the impedance matching resistor unit and the inverting input terminal; and

a fifth resistor unit coupled to the inverting output terminal and the inverting input terminal;

wherein each of the first resistor unit, the second resistor unit, the third resistor unit, the fourth resistor unit, the fifth resistor unit, and the impedance matching resistor unit includes a plurality of resistors in symmetric configuration.

6. A line driver, comprising:

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a differential amplifier having an inverting output terminal, a non-inverting output terminal, an inverting input terminal, and a non-inverting input terminal;

a first resistor unit coupled to the inverting input terminal;

a impedance matching resistor unit coupled to the non-inverting output terminal; and

a resistive feedback network, having a plurality of resistors in symmetric configuration, wherein the resistive feedback network further includes only three of the following resistor units:

a second resistor unit coupled to the impedance matching resistor unit and the inverting input terminal; a third resistor unit coupled to the non-inverting output terminal and the inverting input terminal;

a fourth resistor unit coupled to the impedance matching resistor unit and the inverting input terminal; and

a fifth resistor unit coupled to the inverting output terminal and the inverting input terminal;

wherein each of the first resistor unit, the second resistor unit, the third resistor unit, the fourth resistor unit, the fifth resistor unit, and the impedance matching resistor unit includes a plurality of resistors in symmetric configuration.

7. A line driver, comprising:

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a differential amplifier having an inverting output terminal, a non-inverting output terminal, an inverting input terminal, and a non-inverting input terminal;

a first resistor unit coupled to the inverting input terminal;

a impedance matching resistor unit coupled to the non-inverting output terminal; and

a resistive feedback network, having a plurality of resistors in symmetric configuration, wherein the resistive feedback network further includes only two of the following resistor units:

a second resistor unit coupled to the impedance matching resistor unit and the inverting input terminal;

a third resistor unit coupled to the non-inverting output terminal and the inverting input terminal; a fourth resistor unit coupled to the impedance matching resistor unit and the inverting input terminal; and

- a fifth resistor unit coupled to the inverting output terminal and the inverting input terminal;
- wherein each of the first resistor unit, the second resistor unit, the third resistor unit, the fourth resistor unit, the fifth resistor unit, and the impedance matching resistor unit includes a plurality of resistors in symmetric configuration.